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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,642	02/28/2002	Katsuhiko Hiramatsu	L9289.02131	3592

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EXAMINER	
AGHDAM, FRESHTEH N	

ART UNIT	PAPER NUMBER
2631	

DATE MAILED: 11/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/069,642	HIRAMATSU ET AL.
	Examiner	Art Unit
	Freshteh N. Aghdam	2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 September 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *17-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *17-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments, see page 11, filed 9/2/2005, with respect to the rejection(s) of claim(s) 1-16 under Parkvall et al (US 6,542,736) and Lee et al (US 6,690,944) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Parkvall and Garceran et al (US 6,522,888).

Claim Objections

Claims 26 and 27 are objected to because of the following informalities:

As to claims 26 and 27, the expression "at the communication terminal apparatus" is repeated twice within a sentence and makes the claim indefinite in lines 4-6 and should be changed.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 17-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parkvall et al (US 6,542,736), and further in view of Garceran et al (US 6,522,888).

As to claims 17 and 25, Parkvall teaches a communication method and/ or apparatus, wherein the base station receives the reception quality of a control channel signal (block 62 of figure 4) measured at a communication terminal apparatus (Col. 2, Lines 16-19; Col. 3, Lines 1-9; Col. 7, Lines 28-35); an estimation section that estimates the reception quality of a data channel signal at the communication terminal apparatus based on the information of the reception quality of the control channel signal (Fig. 4) and transmit power value of the control channel signal (Fig. 11, Blocks 150 and 152); and transmitting means for transmitting the data channel signal according to a modulation system and coding system decided using the reception quality of the control channel signal (Fig. 4; Col. 7, Lines 44-47). Parkvall is silent about estimating the reception quality of a data channel signal to be received at the communication terminal apparatus based on the transmit value of the data channel signal at the base station. Garceran teaches estimating the reception quality at the base station based on the transmit power value of the data channel signal (Col. 3, Lines 32-45). Therefore it would have been obvious to one of ordinary skill in the art to combine the teaching of Garceran with Parkvall in order to modify one or more signal transmission parameters to compensate for channel quality variations.

As to claim 18, Parkvall teaches a communicaiton method and/ or apparatus, wherein the reception quality of a control channel signal (block 62 of figure 4) measured at a communication terminal apparatus (Col. 2, Lines 16-19; Col. 3, Lines 1-5; Col. 7,

Lines 28-35); transmitting means for transmitting the reception quality of the control channel signal to the base station apparatus (Fig. 4, Block 62; Col. 2, Lines 16-19; Col. 3, Lines 1-9; Col. 7, Lines 28-35).

As to claims 19 and 22, Parkvall teaches a communication method and/ or apparatus, wherein the mobile station measures the reception quality of a control channel signal sent from a base station apparatus (Fig. 4, Block 62; Fig. 11, Block 150 and 152; Col. 2, Lines 16-19; Col. 3, Lines 1-9; Col. 7, Lines 28-35); an estimation section that estimates the reception quality of a data channel signal at the terminal apparatus based on the information of the reception quality of the control channel signal (Fig. 4) and transmit power value of the control channel signal (Fig. 11, Blocks 150 and 152); and a transmitting section that transmits information of the estimated reception quality of the data channel signal to the base station apparatus (Fig. 4 and 11; Col. 7, Lines 28-36). Parkvall is silent about estimating the reception quality of a data channel signal to be received at the communication terminal apparatus based on the transmit value of the data channel signal at the base station. Garceran teaches estimating the reception quality at the base station based on the transmit power value of the data channel signal (Col. 3, Lines 32-45). Therefore it would have been obvious to one of ordinary skill in the art to combine the teaching of Garceran with Parkvall in order to modify one or more signal transmission parameters to compensate for channel quality variations.

As to claim 20, Parkvall further teaches: selecting means for selecting a target base station apparatus with the best estimated reception quality of the data channel

signal from among all the base station apparatuses as the requested destination of the data channel signal (Col. 3, Lines 6-9) by the terminal apparatus; and transmitting means for transmitting the reception quality of the estimated data channel signal to the target base station (Fig. 4 and 11; Col. 7, Lines 44-47).

As to claim 21; Parkvall teaches that the base station apparatus transmits the data channel signal according to the modulation system and coding system decided using the reception quality of the data channel signal (Fig. 4; Col. 7, Lines 44-47).

As to claim 23, Parkvall teaches a communication method and/ or apparatus, wherein the reception quality of a control channel signal (block 62 of figure 4) measured at a communication terminal apparatus (Col. 2, Lines 16-19; Col. 3, Lines 1-5; Col. 7, Lines 28-35); estimating means for estimating the reception quality of the data channel signal based on the reception quality of the control channel signal and transmit power values of the control channel signal and the data channel signal sent from the base station apparatus (Fig. 11; Col. 3, Lines 1-5); selecting means for selecting a target base station apparatus with the best estimated reception quality of the data channel signal from among all the base station apparatuses as the requested destination of the data channel signal (Col. 3, Lines 6-9); transmitting means for transmitting the reception quality of the estimated data channel signal to the target base station (Fig. 4 and 11; Col. 7, Lines 44-47).

As to claim 24, Parkvall teaches a base station that receives the information of modulation system and coding system sent from the communication terminal apparatus (Fig. 4, 11, and 12); and transmits the data channel signal according to the modulation

system and coding system decided using the reception quality of the data channel signal (Fig. 4; Col. 7, Lines 44-47).

As to claims 26 and 27, Parkvall teaches a communication method and/ or apparatus, wherein the mobile station measures the reception quality of a control channel signal sent from a base station apparatus (Fig. 4, Block 62; Fig. 11, Block 150 and 152; Col. 2, Lines 16-19; Col. 3, Lines 1-9; Col. 7, Lines 28-35); estimates at the communication terminal apparatus the reception quality of a data channel signal (Fig. 9 and 11) based on the measured reception quality of the control channel signal and information of transmit power value of the control channel signal at the base station; deciding at the communication terminal apparatus a modulation system and coding system to be used for a data channel signal using the estimated reception quality of the data channel signal at the communication terminal apparatus (Fig. 9; Col. 10, Lines 49-65); receiving at the base station apparatus information of the estimated reception quality of the data channel signal at the communication terminal apparatus (Fig. 4); and transmitting at the base station apparatus the data channel signal according to a modulation system and coding system decided using the received information of the reception quality of the data channel signal at the communication terminal apparatus (Fig. 4). Parkvall is silent about estimating the reception quality of a data channel signal to be received at the communication terminal apparatus based on the transmit value of the data channel signal at the base station. Garceran teaches estimating the reception quality at the base station based on the transmit power value of the data channel signal (Col. 3, Lines 32-45). Therefore it would have been obvious to one of ordinary skill in

the art to combine the teaching of Garceran with Parkvall in order to modify one or more signal transmission parameters to compensate for channel quality variations.

Claims 17-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parkvall et al (US 6,542,736), further in view of Garceran et al (US 6,522,888) and Lee et al (US 6,690,944).

As to claims 17 and 25, Parkvall teaches a communication method and/ or apparatus, wherein the base station receives the reception quality of a control channel signal (block 62 of figure 4) measured at a communication terminal apparatus (Col. 2, Lines 16-19; Col. 3, Lines 1-9; Col. 7, Lines 28-35); an estimation section that estimates the reception quality of a data channel signal at the communication terminal apparatus based on the information of the reception quality of the control channel signal (Fig. 4); and transmitting means for transmitting the data channel signal according to a modulation system and coding system decided using the reception quality of the control channel signal (Fig. 4; Col. 7, Lines 44-47). Parkvall is silent about estimating the reception quality of a data channel signal to be received at the communication terminal apparatus based on the transmit values of the control channel signal and the data channel signal at the base station apparatus. Garceran teaches estimating the reception quality at the base station based on the transmit power value (Col. 3, Lines 32-45). Therefore it would have been obvious to one of ordinary skill in the art to combine the teaching of Garceran with Parkvall in order to modify one or more signal transmission parameters to compensate for channel quality variations. Lee teaches estimating reception quality of the control signal and the data signal at the base station apparatus

(Fig. 5; Col. 2, Lines 1-10). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teaching of Lee with Parkvall and Garceran in order to increase flexibility and decrease the required transmit power from the mobile station apparatuses to achieve the same quality of services (Col. 2, Lines 1-2 and 28-31).

As to claims 19 and 22, Parkvall teaches a communication method and/ or apparatus, wherein the mobile station measures the reception quality of a control channel signal sent from a base station apparatus (Fig. 4, Block 62; Fig. 11, Block 150 and 152; Col. 2, Lines 16-19; Col. 3, Lines 1-9; Col. 7, Lines 28-35); an estimation section that estimates the reception quality of a data channel signal at the terminal apparatus based on the information of the reception quality of the control channel signal (Fig. 4); and a transmitting section that transmits information of the estimated reception quality of the data channel signal to the base station apparatus (Fig. 4 and 11; Col. 7, Lines 28-36). Parkvall is silent about estimating the reception quality of a data channel signal to be received at the communication terminal apparatus based on the transmit values of the control channel signal and the data channel signal at the base station apparatus. Garceran teaches estimating the reception quality at the base station based on the transmit power value (Col. 3, Lines 32-45). Therefore it would have been obvious to one of ordinary skill in the art to combine the teaching of Garceran with Parkvall in order to modify one or more signal transmission parameters to compensate for channel quality variations. Lee teaches estimating reception quality of the control signal and the data signal at the base station apparatus (Fig. 5; Col. 2, Lines 1-10). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teaching of Lee with

Parkvall and Garceran in order to increase flexibility and decrease the required transmit power from the mobile station apparatuses to achieve the same quality of services (Col. 2, Lines 1-2 and 28-31).

As to claims 26 and 27, Parkvall teaches a communication method and/ or apparatus, wherein the mobile station measures the reception quality of a control channel signal sent from a base station apparatus (Fig. 4, Block 62; Fig. 11, Block 150 and 152; Col. 2, Lines 16-19; Col. 3, Lines 1-9; Col. 7, Lines 28-35); estimates at the communication terminal apparatus the reception quality of a data channel signal (Fig. 9 and 11) based on the measured reception quality of the control channel signal (Fig. 4); deciding at the communication terminal apparatus a modulation system and coding system to be used for a data channel signal using the estimated reception quality of the data channel signal at the communication terminal apparatus (Fig. 9; Col. 10, Lines 49-65); receiving at the base station apparatus information of the estimated reception quality of the data channel signal at the communication terminal apparatus (Fig. 4); and transmitting at the base station apparatus the data channel signal according to a modulation system and coding system decided using the received information of the reception quality of the data channel signal at the communication terminal apparatus (Fig. 4). Parkvall is silent about estimating the reception quality of a data channel signal to be received at the communication terminal apparatus based on the transmit values of the control channel signal and the data channel signal at the base station apparatus. Garceran teaches estimating the reception quality at the base station based on the transmit power value (Col. 3, Lines 32-45). Therefore it would have been obvious to one

of ordinary skill in the art to combine the teaching of Garceran with Parkvall in order to modify one or more signal transmission parameters to compensate for channel quality variations. Lee teaches estimating reception quality of the control signal and the data signal at the base station apparatus (Fig. 5; Col. 2, Lines 1-10). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teaching of Lee with Parkvall and Garceran in order to increase flexibility and decrease the required transmit power from the mobile station apparatuses to achieve the same quality of services (Col. 2, Lines 1-2 and 28-31).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Freshteh N. Aghdam whose telephone number is (571) 272-6037. The examiner can normally be reached on Monday through Friday 9:00-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Freshteh Aghdam
November 1, 2005

KEVIN BURD
PRIMARY EXAMINER